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RAILROADS IN THE PHILIPPINE ISLANDS.

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The question of the construction of railroads in the Philippine Islands was first taken up by the Spanish government about 1870. On August 6, 1875, was published a royal order governing the granting of concessions to construct and operate railways in the Philippine Islands, and in 1876, there was published in Manila a report on the general plan of railways for the island of Luzon by Eduardo Lopez Navarro, an engineer of the department of public works. This plan was submitted to the home government in Spain, and on August 9, 1876, a royal decree was published, giving the character of roads that must be built in the islands. The matter then seems to have been held in abeyance until 1883, when a royal decree of May 11 was published, announcing the routes for railway lines which were approved by the government as of general service in the island of Luzon. The lines thus approved were in accordance with the plan of Lopez Navarro, and were as follows:

Lines of the north:

From Manila to Dagupan by way of Tarlac.

From Dagupan to Laoag by way of the coast.

From San Fernando to Iba by way of Subic.

From Bigaa to Tuguegarao by way of Baliuag and Cabanatuan.

Lines of the south:

From Manila to Taal by way of Calamba, to Albay by way of Santa Cruz and Nueva Caceres.

Lopez Navarro in his report had divided these lines into two classes, as follows: First, those which would be at once profitable from an exclusively commercial standpoint, and in this class he included the line from Manila to Dagupan with a branch line to Cabanatuan, and from Manila to Taal, with a branch line from Calamba to Santa Cruz; and second, those where the returns would, during the first years, barely cover running expenses, under which

he classified the line from Dagupan to Laoag, Santa Cruz to Albay, San Fernando to Iba, and Cabanatuan to Tuguegarao.

It should be observed that the author of this plan was of the opinion that the system in its entirety could be completed at an average cost of \$27,000 per kilometer, and would pay a dividend on the total capital invested of 8 per cent. The matter, however, was not taken up seriously until several years later, when, following the plan proposed by Lopez Navarro, a concession for the road in the island of Luzon, which he regarded as most necessary, was advertised for sale, bids to be opened in Madrid and in Manila. After two unsuccessful efforts to sell the franchise, on the 14th day of October, 1886, the proposition of the representative of an English corporation to take over this concession was accepted. The road, the construction of which was thus undertaken, was from the City of Manila northward to Dagupan, a distance of 120 miles. This road was opened for operation in 1892.

By the terms of the concession the concessionaire was guaranteed annual net earnings of 8 per cent on the capital to be employed, which was fixed at \$5,553,700 Mexican. The net earnings were fixed arbitrarily at one-half of the gross earnings. When half the gross earnings exceeded 8 per cent. of the fixed capital, it was provided that the excess should be divided equally between the concessionaire and the Spanish government. The concession was for the period of ninety-nine years, at the expiration of which the Spanish government was to come into possession of the line, rolling stock and appurtenances of the road. For the ten years preceding the termination of the concession the government was entitled to retain the net proceeds of the railroad and employ them in maintaining it if the company did not fulfil the obligation of properly maintaining the road.

It is interesting to note that under this concession for several years the Spanish government was required to pay varying amounts to the concessionaire in accordance with terms of the concession; that in fact in the first quarter of the year 1898, for the first time, the net proceeds of the road exceeded the 8 per cent of the guaranty. Between 1892 and 1898 the government paid to the concessionaire in round numbers \$600,000 Mexican, but in the first quarter of 1898, received \$3,110 as its participation in the excess of net profits over the

guaranteed income. In 1905, on the other hand, the last year of which we have accurate information, the gross earnings of this line were \$847,410, United States currency, the net earnings being about 16 per cent on the cost of road. This would have given to the government, under the Spanish charter, a profit on the road for that year of approximately \$100,000 gold. This, however, has ceased to be a matter of more than curious interest, because the United States government refused to acknowledge as binding on itself the liabilities imposed on the government by the Spanish charter, and has felt equally that it could claim the emoluments due to the government under the terms of the charter. The solution of the very difficult question arising from this refusal of the United States government to accept as binding on it the Spanish charter is clearly set forth in the annual report of the Secretary of War for the past year.

In the first few years of American occupation of the Philippine Islands, the attention of the authorities was naturally directed to other and more pressing matters; but no sooner had peace been established in the islands than the importance of creating, among other methods of transportation, a system of railroads for the islands was fully recognized. It was also fully understood, especially in the light of the experience of the Spanish government, that without some governmental encouragement or guaranty, it would be impossible to induce responsible people to enter upon the construction of railroads in the Philippine Islands.

The organic act creating the present Philippine government, approved July 1, 1902, authorized that government to grant perpetual franchises for operations of railroads and other works of public utility and service (Sec. 74, Act of July 1, 1902). In accordance with this act the Philippine Commission, with the approval of the Secretary of War, in 1902 and 1903 granted perpetual franchises to the existing railway company to construct four branches, one to Cabanatuan, 55 miles in length; one to Antipolo, 24 miles in length and two short, unimportant branches. The franchises provided for payment of $1\frac{1}{2}$ per cent of gross earnings in lieu of taxes for a period of thirty years.

This, then, was the condition of the Philippine Islands as to railroads when, in February, 1905, Congress passed an act which authorized the Philippine government to aid the construction of

railroads by guaranteeing interest not exceeding four per cent for thirty years on bonds, the proceeds of which should be used to build railroads under franchises granted by the Philippine government.

At the time of the passage of this act, 120 miles of railroad—the Manila and Dagupan line—was being operated under the Spanish franchise heretofore referred to, and 85 miles was being operated, or was under construction, by the same railroad company under the franchises granted by the Philippine Commission. The act of February, 1905, gave the opportunity for assistance to railroad construction which the Philippine Commission had long desired.

After the passage of this act it was necessary to determine the lines of railroad which it was most necessary to have constructed. In determining this it was necessary to consider the amount of contingent liability which the Philippine government could readily assume and the railroads which commercially were most desired, as well as those which would be of the greatest benefit in opening up sections of the islands which were susceptible of development.

It was determined to offer concessions for three lines in northern Luzon, one from Dagupan to Laoag, 168 miles in length; another from Dagupan by way of Tuguegarao to Aparri, 260 miles in length, and the third from San Fabian to Baguio, 55 miles in length; two important lines in southern Luzon, one being from Manila to Laguna, Tayabas and Batangas, 130 miles in length, and the other through the provinces of Ambos Camarines and Albay, 100 miles in length.

It is important to notice in this connection that these roads were practically the same as those selected by the Spanish engineer, Lopez Navarro, in 1876, the principal differences being that in the second of the lines above mentioned in northern Luzon he proposed to have its northern terminus at Tuguegarao instead of going to Aparri on the north coast, and that instead of the line from San Fabian to Baguio he had proposed a line from San Fernando by way of Subic to Iba, in the Province of Zambales. The condition which had made the line to Baguio important, that is, the selection of that place as the summer capital of the Philippines, was not existent when Lopez Navarro made his report. The lines in south-

ern Luzon differed in no material respect from the lines proposed by him.

It was determined further to offer five lines on as many different islands of the Visayan group. These lines had apparently never been contemplated in the time of the Spanish government of the Philippines. The lines selected in the Visayas were, first, on the island of Panay from Iloilo, the capital of the Province of Iloilo, to the towns of Capiz and Batan on the north coast, a distance of approximately ninety-five miles; second, a line on the island of Negros, from the harbor of Escalante on the northeast coast to Himamailan on the west coast, approximately 108 miles; third, a line on the island of Cebu from the City of Cebu to Danao on the east coast, and south from Cebu to Argao, on the same coast, with the option of a line across the island from Carcar or Sibonga to the west coast, and thence along the coast between Dumanjug and Barili, a distance of approximately 80 miles. The distances are given from preliminary surveys and vary somewhat from the distances given in the invitation for proposals. Lines were also proposed on the islands of Leyte and Samar for 55 and 50 miles, respectively.

Having determined the lines which it was desired, if possible, to have constructed, it was decided that, while not required by law, it was best to invite public competition in the letting of the franchises. In preparing the invitation for bids it was necessary to so arrange the conditions of the bid as to be fair to the then existing railway, and at the same time fair to any new corporation that desired to construct railways in the Philippine Islands. This, it is thought, was satisfactorily arranged and the published invitation has never been criticised in this respect.

The existing railways were 3 feet 6 inch gauge, and while all American experience pointed to the advantage of having the new lines of the standard gauge of 4 feet 8 inches, especially if they were to be built by American companies, yet fairness to the existing roads required that this matter of gauge should be optional as between these two gauges, and it was so made in the invitation for bids, the preference being given after exhaustive examination and consideration of local conditions to the narrower of the two gauges.

The next important consideration in the invitation was to make the bidding as fair as possible between small corporations who

might desire to build one or more of the lines, and larger corporations who might desire to take over the whole railway proposition. This was done by requiring that proposals or bids should be made in respect of either:

- (1) The railway system as an entirety.
- (2) The lines in northern Luzon, inclusive and collectively.
- (3) Any other lines singly or collectively.

The next important question was to determine the bases of competition, and it was provided as follows:

The successful bidder or bidders for the proposed concessionary contract or grant will be selected by the Philippine government after a consideration of the following points of competition as disclosed in the written bids:

(a) The lines of railway above mentioned and the mileage thereof which the bidder will so construct, equip, maintain, and operate without any guaranty.

(b) The rate of interest to be guaranteed on the bonds, which rate may not exceed 4 per cent, the bidder to state what, if any, less rate he will accept.

(c) The duration of such guaranty, which may not exceed thirty years, the bidder to state what time, if any, less than thirty years he will accept as the duration of the guaranty.

(d) What percentage less than 95 per cent of the cost of construction, as defined in paragraph XI, the bidder will accept as the amount for which such first lien interest guaranteed bonds shall be issued in accordance with paragraph XII.

(e) Alternative proposals involving all, either or any combination of the foregoing points of competition.

(f) The Philippine government in determining the proper grantee to whom to award the concession will exercise its discretion to secure a grantee capable of fulfilling the conditions and requirements of the concessionary contract or grant. To aid in the selection each bidder must state what organization and facilities he commands for undertaking the work, what forces will be employed in making the final location, and how soon and in what manner the work of construction will be prosecuted thereunder, and with what organization and credit or means of credit he intends to maintain and operate the system or lines.

In addition to these points it was necessary to prescribe in the invitation for bids the conditions which would govern the construction; the privileges, in addition to that of free entry of material as provided in the law of Congress, which might be given to the constructing company by the Philippine Commission; requirements with reference to telegraph and telephone systems along the line of

railway; requirements as to taxes; and what should be included in the cost of construction against which bonds guaranteed by the Philippine government were to issue. These matters were all considered by the War Department, in correspondence with the Philippine Commission and also with others having a public interest in the matter, and possible intending bidders and railway experts in the United States. The invitation is too extensive to be given within the limits of this paper, but can be found in full, as can also the laws subsequently enacted by the Philippine Commission granting the concessions, in the report of the Secretary of War for the year just ended. This invitation for bids was issued by the Secretary of War under date of June 12, 1905.

It had developed prior to the issue of the invitation that while there would be in probability some serious bids, American capital in general was far from enthusiastic over a railway proposition so remote from its ordinary fields of investment as the Philippine Islands; nor was the guaranty for thirty years of 4 per cent on the cost of construction, the maximum authorized under the law, a great temptation.

The bids were opened on the fifteenth of December, but it is necessary to consider but two of the three bids received. The first bid was made by a syndicate composed of William Salomon and Company, the International Banking Corporation, Heidelberg, Ickelheimer and Company, Cornelius Vanderbilt, Charles M. Swift, H. R. Wilson, and J. G. White and Company, and was for the three lines heretofore described in the islands of Cebu, Panay and Negros. This bid called for practically the maximum guaranty, both as to amount and as to time, which the Philippine government was authorized to make under the law.

The second bid was from Speyer and Company, in their own behalf, and that of the existing railway company in the island of Luzon, and was for the two lines in the south of Luzon, heretofore described, and for certain branches of their existing railway in the north of Luzon, but did not include the line from San Fabian to Baguio or from Dagupan to Laoag, nor the northern line extending down the Cagayan Valley to Aparri. Speyer and Company's bid called for no guaranty on the part of the government.

Both of these bids failed to comply with the requirements of

the invitation in the matter of time for the completion of the work, and in certain other details. The bids were accordingly rejected and an amended invitation issued calling for bids to be opened January 20, 1906. On opening the bids on that date it was found that the syndicate referred to first had again bid for the three lines in Negros, Panay and Cebu. This bid complied with all the conditions of the invitation as amended, and was accepted. Under the terms of the proposal the Philippine government was required to guarantee interest at 4 per cent for thirty years on bonds equal in par value to 95 per cent of the cost of construction of these lines. It is estimated that the total cost of the 283 miles of railway, including original equipment, will be in the neighborhood of \$12,000,000.

The second bid, as in the preceding opening, was from Speyer and Company, and consisted of two parts. One was for the construction of the line from Dagupan north to Laoag, approximately 168 miles, and called for the full authorized guaranty for the maximum term authorized by law. The second part of the bid was for branches from the existing lines of the Manila Railway Company to Cavite and Naic, 29 miles; from San Fernando to Floridablanca, 14 miles; from Dau to San Pedro Magalang, 9 miles; from San Miguel to La Paz, 10 miles; from Moncada to Humingan, 24 miles; a branch from Maraquina, on the Manila-Antipolo line, then under construction, to Montalban, an estimated distance of 8 miles; and for the two lines, slightly modified as to some details, advertised for the south of Luzon, and for a line from Dagupan to Camp No. 1 on the road to Baguio, distance of about 25 miles.

As the conditions stated in the proposal of Speyer and Company were in several respects unsatisfactory, the matter was taken up with that company, through their legal representative, Mr. John G. Milburn, and after some discussion the terms of the proposal were so modified as to meet the objections of the Secretary of War and of the Philippine Commission. The first part of the Speyer and Company bid was withdrawn at the request of the Philippine Commission, which felt that, having agreed to the contingent liability for the lines in the Visayan islands, they would prefer to proceed with the construction and operation of these roads before making a further guaranty under the authority of the act of Congress. Instead, therefore, of undertaking, as proposed, the construction of

the road from Dagupan to Laoag under the guaranty, the concessionaire agreed to construct a line from Dagupan to San Fernando, a distance of approximately 35 miles without guaranty. The bid of Speyer and Company, as finally accepted, proposed to build in the island of Luzon approximately 426 miles of road without guaranty on the part of the government.

In accordance with the terms of the act of Congress authorizing the Philippine government to assist in the construction of these roads, the syndicate whose bid for the Visayan railroads had been accepted, was organized as a corporation under the laws of the State of Connecticut, under the name of The Philippine Railway Company, and on May 28, 1906, the Philippine government formally passed an act granting the Philippine Railway Company a concession in accordance with the terms of the accepted proposal for those lines. Similarly a corporation to take over the concession bid for by Speyer and Company was organized under the laws of the State of New Jersey, under the name of The Manila Railroad Company, and on July 7, 1906, the Philippine Commission passed an act granting to that company a concession in accordance with the terms of the accepted proposal of Speyer and Company.

The concessions having been granted, little time was lost in beginning the actual work of construction, and there is every indication that the work will be entirely completed on all the roads now authorized within four years. The Philippine Railway Company, in the month of February, had 4,000 men working on the island of Cebu and 1,500 on the island of Panay. The first twenty miles of the road in Cebu will probably be completed and open for operation in the month of June. The government is represented in the construction of these roads by an expert railroad engineer sent from the United States. He passes on all questions relating to the class of construction, and questions relating to the cost of construction of those roads in which the government guarantees the interest on bonds.

Summarizing—when we took over the Philippine Islands there was a single line of road 120 miles in length from Manila to Dagupan. The population tributary to this road was 700,000. The net income of this road in 1905 was approximately 16 per cent of the fixed cost of construction. In 1902 and 1903 franchises were

granted by the Philippine government for the construction of eighty-five miles of additional railway by this company. These lines are now completed and in successful operation. Under the act of February, 1905, a concession was granted for the construction of 426 additional miles in the island of Luzon without guaranty of any kind on the part of the Philippine government. These lines, in general, pass through country as thickly populated as the territory of the old Manila-Dagupan Railway, and these in the south of Luzon through territory which is perhaps more productive. Under the same act concessions were granted for 283 miles in the islands of Panay, Negros, and Cebu, with the government guaranty of 4 per cent interest for thirty years on bonds covering the cost of construction.

We now have, then, in the Philippine Islands 205 miles of railroad in actual operation, and 709 miles under construction, a total of 914 miles. This does not seem a large thing for a territory occupied by nearly eight millions of people, and there is no doubt that after those lines now under construction are in operation, the mileage will be materially increased.

To appreciate, however, all that has been accomplished in this matter, it must be understood that all this work has been undertaken in a period of great commercial depression in the Philippine Islands; they have been undertaken without any promise that the country through which they go will be exploited in any way. The labor in the Philippines is, and will continue to be, that of the people of the islands themselves. The importation of Chinese laborers, and in fact the immigration of Chinese, is restricted by the same laws that govern in the United States. The land laws of the Philippine Islands are perhaps the most restrictive on earth. Every effort on the part of the government has been made to enable the Filipino to take up the public lands to the exclusion of every one else, and the laws are such as to practically prohibit any one but a Filipino from taking up or developing public lands. Aside from the Filipino, no one but an American citizen can take up public land in the Philippines, or in fact purchase such lands, and the individual is limited to 16 hectares (approximately 40 acres) and a corporation to 1,024 hectares, or approximately 2,500 acres, which amounts are so small as to practically discourage any effort at exploitation on the part of Americans.